Virtual Prototyping

Janet Davis, U.S. Army AMCOM

There are many lessons to be learned from past efforts in virtual prototyping of military systems. These lessons can be used to direct future efforts and to save future projects time and money. They include design level issues, exercise participation, advantages and disadvantages of virtual prototyping and the future direction. The speaker has been involved with virtual prototyping for the past 6 years, primarily in support of the Rapid Force Projection Initiative (RFPI) Technical Program Management Office (TPMO). Prototypes of the Hunter Sensor Suite and Remote Sentry Advanced Concept Technology Demonstration (ACTD) systems were developed to participate in numerous RFPI exercises. Two versions of the prototypes were developed – a reconfigurable with soft controls and a Form, Fit, and Function (FFF) version with hard controls and a more immersive environment. Through these efforts, various lessons were learned and information gathered. These are the subject of the briefing to be presented.

Information to be discussed will include:
- The importance of user and developer interaction
- The types of hardware and software are necessary
- Advantages and disadvantages of varying types of hardware and software
- The need for configuration control for exercises
- Interoperability issues for exercises
- Future direction of virtual prototyping